

## Message Text

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PAGE 01 NAIROB 07746 211030Z  
ACTION AF-10

INFO OCT-01 EB-07 ISO-00 OES-07 IO-14 FEA-01 ERDA-07  
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FM AMEMBASSY NAIROBI  
TO USDOC WASHDC PRIORITY  
INFO SECSTATE WASHDC 9119

UNCLAS NAIROBI 7746

E.O. 11652: N/A  
TAGS: BEXP, BENC, KE  
SUBJ: OLKARIA GEOTHERMAL PROJECT

REF NAIROBI 7535

1. THE FOLLOWING TEXT OF AN INVITATION TO U.S. SUPPLIERS TO PARTICIPATE IN TURBINE MATERIALS CORROSION TESTING FOR THE OLKARIA GEOTHERMAL PROJECT WAS RECEIVED JUNE 20TH. EXPECTED TENDER DATES IN THE INVITATION DIFFER FROM THOSE OBTAINED FROM E.A.P. & L. CHIEF EXECUTIVE AND REPORTED IN REFTEL.

2. THE OLKARIA GEOTHERMAL STEAM FIELD IN KENYA IS TO BE EXPLOITED BY USING THE GEOTHERMAL STEAM DIRECTLY TO DRIVE TURBO-GENERATORS. IT HAS BEEN ESTIMATED IN A RECENT UN REPORT THAT THE FIELD IS CAPABLE OF BEING DEVELOPED TO PRODUCE A MINIMUM OF 170MW AND THE STEAM SUFFICIENT FOR ABOUT 9MW HAS ALREADY BEEN PROVED. THE EAST AFRICAN POWER & LIGHTING COMPANY NOW PROPOSES TO INSTALL A 15MW SET. THE OLKARIA FIELD IS LOCATED IN THE RIFT VALLEY ABOUT 8KM SOUTH OF LAKE NAIVASHA AT LONGITUDE 36-18E, LATITUDE 0-53S (KENYA ORDINANCE SURVEY SERIES Y731, SHEET 133/4, GRID REFERENCE 990 100 N, 200,000). THE SITE IS ACCESSIBLE BY ROAD FROM NAIVASHA. SUBJECT TO THE FINDINGS OF A PROJECT REPORT BEING PREPARED BY MERZ & MCLELLAN, CONSULTING ENGINEERS, IT IS UNCLASSIFIED

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EXPECTED THAT TENDERS WILL BE INVITED LATER THIS YEAR FOR THE SUPPLY, ERECTION AND COMMISSIONING OF A STEAM COLLECTION SYSTEM, A 15MW TURBO-GENERATOR WITH CONDENSER, COLLING WATER SYSTEM AND ASSOCIATED EQUIPMENT. FOR THE PURPOSE OF CONFIRMING THE SUITABILITY OF MATERIALS WHICH WILL BE EXPOSED TO THE GEOTHERMAL STEAM, IN PARTICULAR THE TURBINE, A PROGRAM OF CORROSION TESTING IS TO BE

CONDUCTED, STARTING AS SOON AS PRACTICABLE. COMPANIES WHO MAY WISH TO TENDER FOR THE PLANT ARE INVITED TO PARTICIPATE IN THE TESTING PROGRAM, WHICH WILL BE DIRECTED AND CO-ORDINATED BY THE CONSULTING ENGINEERS. E.A.P. & L. WILL OPERATE THE GEOTHERMAL WELLS PROVIDING STEAM FOR THE TESTS AND WILL GIVE DAY-TO-DAY SUPERVISION. AN ANALYSIS OF THE GEOTHERMAL STEAM AND THE SMALL FRACTION OF GASES ASSOCIATED WITH IT WILL BE SENT ON REQUEST. IT IS ENVISAGED THAT THE PROGRAM OF TESTS WILL INCLUDE THE EXPOSURE OF CORROSION DISCS, U-BEND SPECIMENS, BENT-BEAM SPECIMENS AND FATIGUE SPECIMENS IN GEOTHERMAL STEAM FROM WHICH THE WATER HAS BEEN SEPARATED BUT DIFFERENT TESTS TO SUIT THE REQUIREMENTS OF INDIVIDUAL MANUFACTURERS WILL BE CONSIDERED. IT IS THE INTENTION THAT EACH INTERESTED COMPANY SHALL PROVIDE, AT ITS OWN EXPENSE, A TEST VESSEL TO CONTAIN DUPLICATE SPECIMENS SO THAT AT THE END OF THE TESTS ONE OF EACH SPECIMEN CAN BE RETAINED BY E.A.P. & L. AND THE OTHER BY THE PARTICIPATING COMPANY. THE TEST VESSEL WOULD BE INSTALLED BETWEEN FLANGES IN A GEOTHERMAL STEAM LINE MAINTAINED AT A STEADY PRESSURE AND WITH CONSTANT STEAM FLOW. A REPORT WOULD BE EXPECTED FROM A PARTICIPATING COMPANY ON ITS FINDINGS OF THE CORROSION TESTS IN SUPPORT

OF ANY SUBSEQUENT TENDER FOR PLANT FOR THE GEOTHERMAL PROJECT. IN THE INTEREST OF OBTAINING AN EARLY START TO THE CORROSION TEST PROGRAM E.A.P. & L. WOULD BE PREPARED  
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TO GIVE ASSISTANCE IN PROCURING A SUITABLE TEST VESSEL IN KENYA. COMPANIES INTERESTED IN TENDERING FOR THE PROPOSED PLANT SHOULD SEND DETAILS OF THEIR PROPOSALS FOR PARTICIPATING IN THE CORROSION TEST PROGRAM BEFORE JUNE 30TH, 1977, TO MERZ AND MCLELLAN, AMBERLEY KILLINGWORTH, NEWCASTLE-ON-TYNE NE 12 ORS, ENGLAND, TELEX: 53561. A COPY OF THE PROPOSAL SHOULD ALSO BE SENT TO THE EAST AFRICAN POWER & LIGHTING COMPANY, ATTN: CHIEF ENGINEER, GENERATION, P.O. BOX 30099, NAIROBI, KENYA.  
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## Message Attributes

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**Review Markings:**  
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